DECISION DOCUMENT
TRENCH NEAR 50-60, SWMU J-24
Hawthorne Army Depot
Hawthorne, Nevada
October 1999

1. PURPOSE of DECISION DOCUMENT

1.1 Introduction

This decision document describes the rationale for the remedial action at, and closure of, Solid Waste Management Unit (SWMU) J-24, Trench Near 50-60, at the Hawthorne Army Depot (HWAD), Hawthorne, Nevada. This decision document was developed by the U.S. Army Corps of Engineers, Sacramento District (USACE), HWAD, and Day & Zimmermann Hawthorne Corporation, with support from the Nevada Department of Conservation and Natural Resources, Division of Environmental Protection (NDEP).

1.2 Site Description and Background

SWMU J-24 is located adjacent to and south of Highway 95 and about 1,200 feet northeast of base supply well No. 2, near 2nd Avenue South.

The site was described from an aerial photograph as a possible former loading dock that may have been a construction depot (RAI, 1992). A 1980 aerial photograph of the site (EMSL, 1981) identified an "old trench," unidentified materials, and bulldozer scars located within an area roughly 600 square feet (about 8 acres).

Tetra Tech reviewed all previous work done for the Group B SWMUs and compiled an annotated bibliography for past work (Tetra Tech, 1993).

Tetra Tech visited the loading dock located near the reported former cement plant in November 1993. The "trench" identified in the aerial photograph is a wide depression, about 450 feet long, and may have been a natural drainage feature. It is oriented in line with other regional drainage features, is wider and more gently sloped than other trenches observed on the installation, and there are no piles of excavated soil. A concrete loading dock structure is built along the west side of the depression, and the foundation of a former wooden building is located adjacent to the dock. The unidentified material in the aerial photograph is hardened concrete aggregate that was apparently washed out of mixing trucks onto the ground. No evidence of hazardous waste disposal was observed.

The water level elevation in base supply well #2 in 1974 was 4,084 feet msl (Van Denburgh and Rush, 1975). Tetra Tech conducted a basewide ground water level survey in March, 1994. Based on this survey, ground water at SWMU J-24 was estimated at an elevation of 4,085 feet msl (255 feet bgs).

1.3 Chemicals of Concern

The potential chemicals of concern are listed in Table 1.

TABLE 1 - SUMMARY OF CHEMICALS OF CONCERN

Chemical of Concern	Rationale Behind Designation	Reference
Metals	Possible disposal of metal debris	USACE 1993
Asbestos	Possible disposal of asbestos-containing materials	USACE 1993

2. SUMMARY of SITE RISK

All samples had concentrations of metals below their respective closure goals.

3. SUMMARY of REMEDIAL INVESTIGATIONS and REMEDIAL ACTIONS

3.1 Remedial Investigations

3.1.1 Objectives

The objective of the investigation at SWMU J-24 was:

- To determine the presence of metals and asbestos in the near surface soils at the site.

This objective was met.

3.1.2 Planned and Actual Investigations

Planned and actual field investigation activities are described in Table 2. Figure J-24-2 2 shows the location of the actual field investigation activities at SWMU J-24. A permanent monument was installed and surveyed, and SWMU boundaries delineated, at the locations shown in these figures. The appendices of this report include HWAD proposed closure goals for soils, lab results and detection limits, survey results, and photographs. All activities were conducted based on the Work Plan (Tetra Tech, 1994a), Site Safety and Health Plan (Tetra Tech, 1994b) and the Chemical Data Acquisition Plan (Tetra Tech, 1994c).

TABLE 2 - SUMMARY OF PLANNED AND ACTUAL FIELD INVESTIGATION

Planned Investigation	Actual Investigation	Comments
Near Surface Sampling - Soil sampling at 5 locations, 1 sample per location	**Near Surface Sampling** - Soil sampling at 5 locations, 1 sample per location	
Surveying - GPS[a] at soil sample locations	**Surveying** - GPS at soil sample locations	

[a]GPS = Global positioning system

Soil samples collected and analyses performed are as follows:

Sample Locations	Depth (ft)	Metals Analyses
Near Surface		
SS01 through SS05	0	Y

3.1.3 Results

Table 3 lists metals analytical results for the surface soil samples. The associated background levels for metals and the proposed closure goals are also shown in Table 3.

TABLE 3 - SUMMARY OF METALS ANALYTICAL RESULTS

Sample Number	Sampled Date	Sample Depth (ft)	Metals (mg/kg) EPA Method 6010 (Method 7471 for Hg)							
			As	Ba	Cd	Cr	Pb	Hg	Se	Ag
Near Surface Sampling										
J24-SS01-1-S	13-Jul-94	0.0	ND[a]	99	ND	3.3	8.8	ND	ND	ND
J24-SS02-1-S	13-Jul-94	0.0	ND	95	ND	2.7	9.5	ND	ND	ND
J24-SS03-1-S	13-Jul-94	0.0	ND	120	ND	2.5	15	ND	ND	ND
J24-SS04-1-S	13-Jul-94	0.0	ND	150	ND	4.3	20	ND	ND	ND
J24-SS05-1-S	13-Jul-94	0.0	ND	170	ND	3.5	14	0.040	ND	ND
Associated Background Samples	**Soil Series**	**Mappable Unit**								
B16	Papoose	502	ND	80	0.60	4.6	8.3	ND	ND	ND
B40	Papoose	502	ND	51	0.23	3.3	ND	ND	ND	ND
Proposed Closure Goals			30	5600	40	80000	1000	24	400	400

[a]ND = Below laboratory method detection limit for all analytes

3.2 Remedial Actions

3.2.1 Summary of Remedial Alternatives

The alternative for this site is the removal of surface debris and any asbestos-containing material, and the collection of two soil samples at points where the debris was located. The samples would be analyzed for metals.

3.2.2 Summary of Remedial Actions

There was a very small amount of wood debris located within the SWMU boundary. Immediately to the west, around the "Old Foundation", and further west across the dirt road, was a larger amount of wood debris and a few small pieces of scrap metal. Asbestos-containing material was not present at the site. Two soil samples were collected at points where the majority of the debris was located and were analyzed for TCLP metals. The results for these samples were non-detect with the exception of mercury which was detected in one sample at .0025 mg/L, well below the closure goal of 24 mg/kg. Copies of these lab results are included at Appendix B. Photographs of the site before and after the implementation of this alternative are attached.

4. CONCLUSIONS and RECOMMENDATIONS

The HWAD proposed closure goals for all analytes are listed in Appendix A. These closure goals were used in evaluating the detected chemicals. All metals concentrations were below their respective closure goals.

It is recommended that no further investigation be performed at this SWMU and that the site be closed with regard to the chemicals of concern and without land use restrictions.

5. PUBLIC/COMMUNITY INVOLVEMENT

It is U.S. Department of Defense and Army policy to involve the local community throughout the investigation process at an installation. To initiate this involvement, HWAD has established a repository in the local public library, which includes final copies of all past studies and documents regarding environmental issues at the facility. This repository will be maintained and updated with all future final documents as they are issued to HWAD.

HWAD has solicited community participation in establishment of the restoration advisory board (RAB). However, because of insufficient public response, HWAD has not formed a RAB. HWAD will continue to solicit community involvement.

6. DECLARATION

The selected remedy is protective of human health and the environment. It has been shown that a complete exposure pathway to human health and the environment does not exist, and there is no potential for such an exposure pathway to be completed in the future.

U.S. ARMY

25 OCT 1999
Date

James A. Piner
Lieutenant Colonel, U.S. Army
Commanding

STATE OF NEVADA

22 Nov 1999
Date

Paul Liebendorfer
Chief, Bureau of Federal Facilities

REFERENCES

EMSL. 1981. Aerial Reconnaissance of Hazardous Waste Sites, Weed Heights and Hawthorne, Nevada. TS-AMD-8106. (Environmental Monitoring Systems Laboratory, Las Vegas, NV). Prepared for U.S. EPA Region 9 by Lockheed Engineering and Management Services Co., Inc., Las Vegas, NV.

RAI. 1992. Site Screening Inspection (SSI) for the Hawthorne Army Ammunition Plant, Hawthorne, NV. Prepared for the U.S. Army Corps of Engineers Toxic and Hazardous Materials Agency by Resource Applications, Inc., Falls Church, VA. December, 1992. Contract No. DAAA 15-90-D-003, Task 5.

Tetra Tech. 1993. Draft Technical Memorandum for Group B SWMUs, Hawthorne Army Ammunition Plant. November 22, 1993.

Tetra Tech. 1994a. Remedial Investigation, Group B SWMUs, Final Work Plan, Volume 1, Investigation Description, and Volume 2, Sampling and Analysis Plans, Hawthorne Army Ammunition Plant. May, 1994.

Tetra Tech. 1994b. Site Safety and Health Plan, Hawthorne Army Ammunition Plant. June, 1994.

Tetra Tech. 1994c. Final Chemical Data Acquisition Plan, Hawthorne Army Ammunition Plant. June 28, 1994.

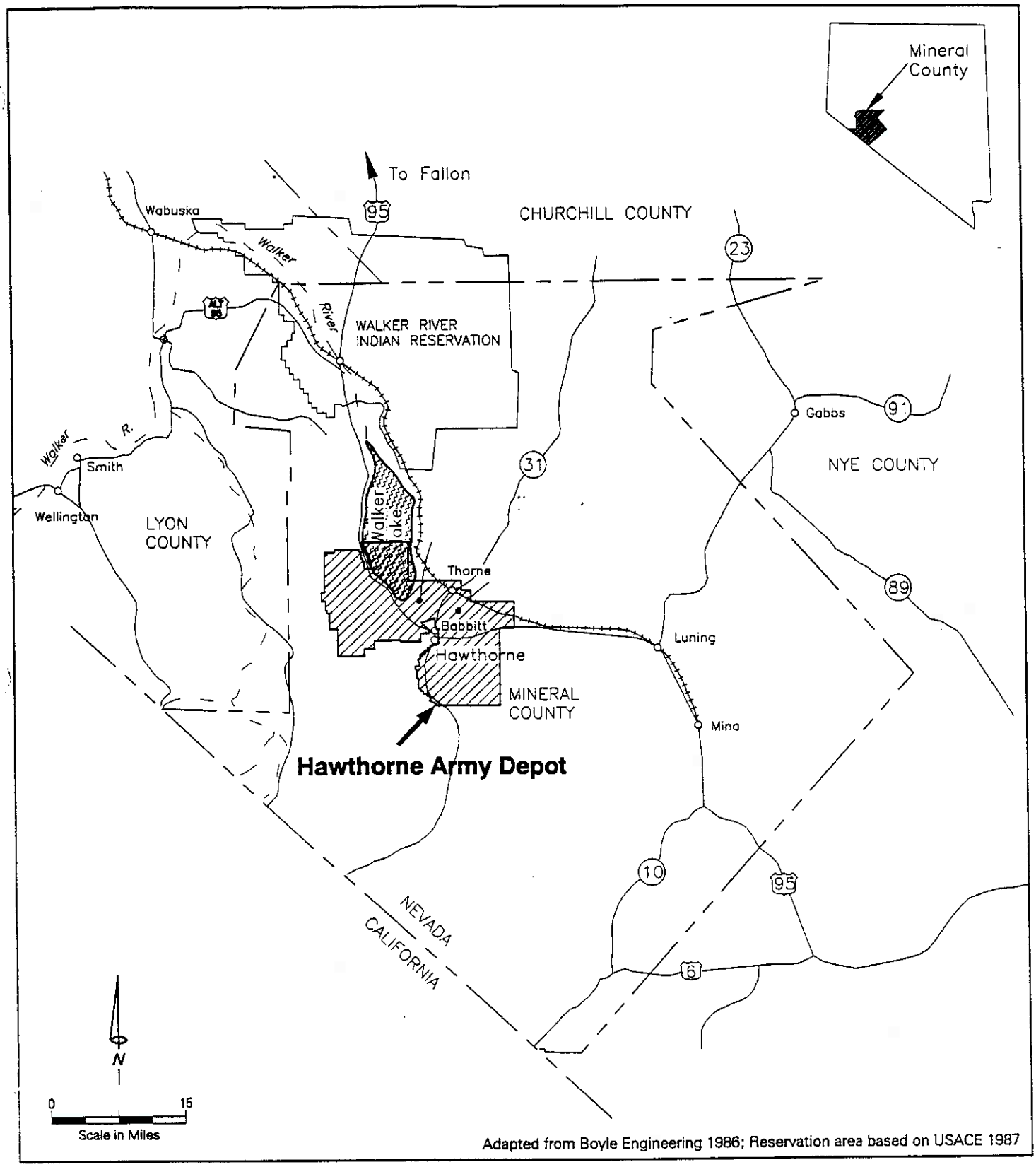
Tetra Tech. 1995. Group B Chemical Data Submittal, Hawthorne Army Ammunition Plant. March, 1995.

Tetra Tech. 1996. Hawthorne Army Depot Remedial Investigation Group B Solid Waste Management Units, Final Closure Report, SWMU A-03 Coal Ash Landfill, SWMU B-28a 108-20a EO Spill Impoundment, SWMU B-28b 108-20b EO spill Impoundment, SWMU B-28c 104-8 EO Spill Impoundment, SWMU B-28d 104-10 EO Spill Impoundment, SWMU I-14 Bldg 46 Spill Site, SWMU J-04 107 Drum Storage, SWMU J-05 Dock 1 Landfill, SWMU J-06 Dock 2 Landfill, SWMU J-07 Dock 3 Landfill, SWMU J-08 Dock 4 Landfill, SWMU J-09 Dock 5 Landfill, SWMU J-10 Dock 6 Landfill, SWMU J-13 WADF South Dump, SWMU J-17 Thorne Drum Area, SWMU J-21 Bldg 97 Old Dock Area, SWMU J-22 50 Group Pits, SWMU J-24 Trench near 50-60.

USACE. 1993. Installation Action Plan for Hawthorne Army Ammunition Plant (HWAAP), prepared by S. Hong.

Van Denburgh, A.S. and F.E. Rush. 1975. Source of Nitrate in Water from Supply Well 8, Hawthorne Naval Ammunition Depot, NV. U.S. Geological Survey administrative report, prepared in cooperation with the U.S. Navy. March, 1975. 23 pp.

Figures

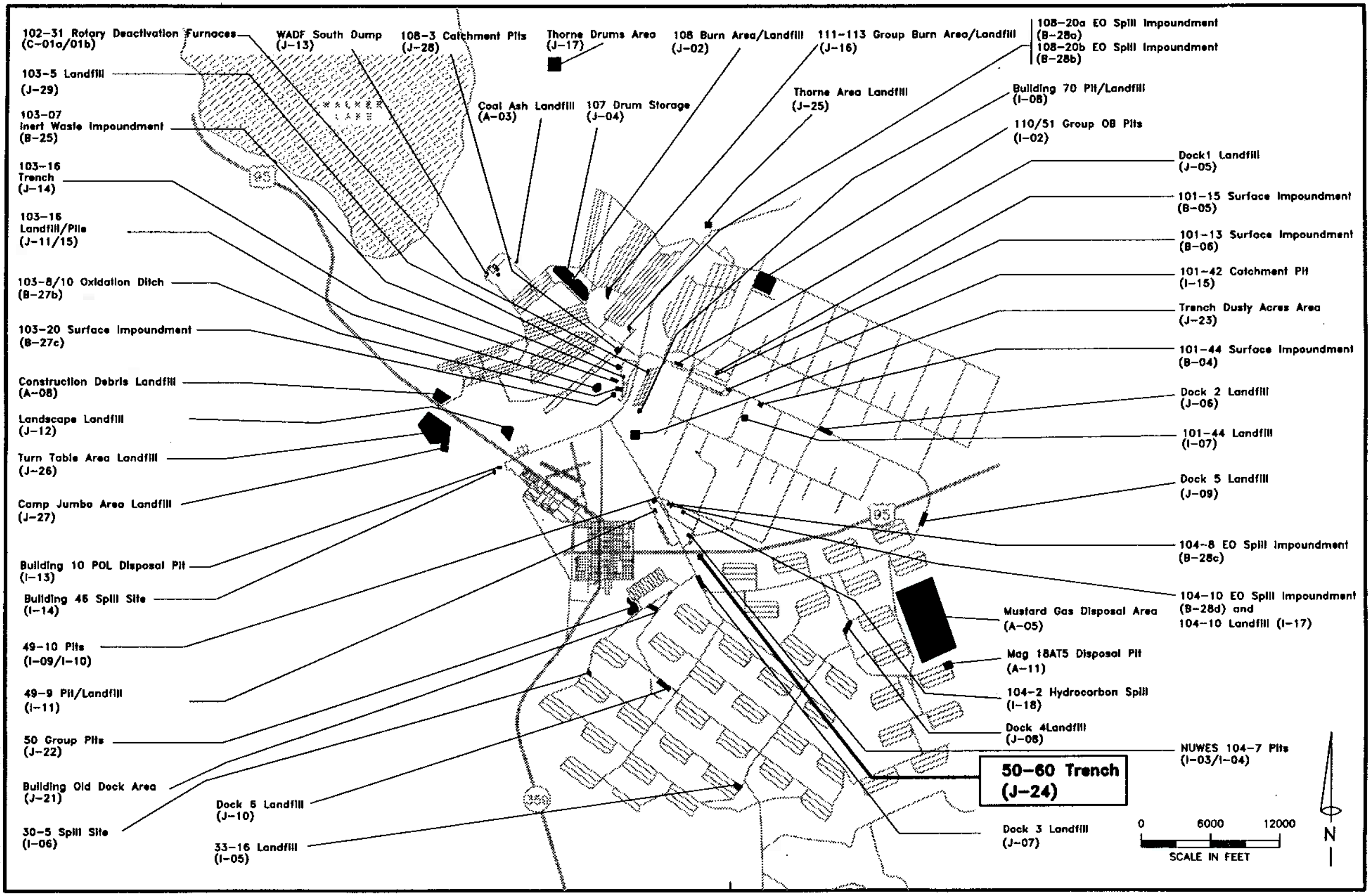


Location Map

Legend

Hawthorne Army Depot

Hawthorne Army Depot
Hawthorne, Nevada

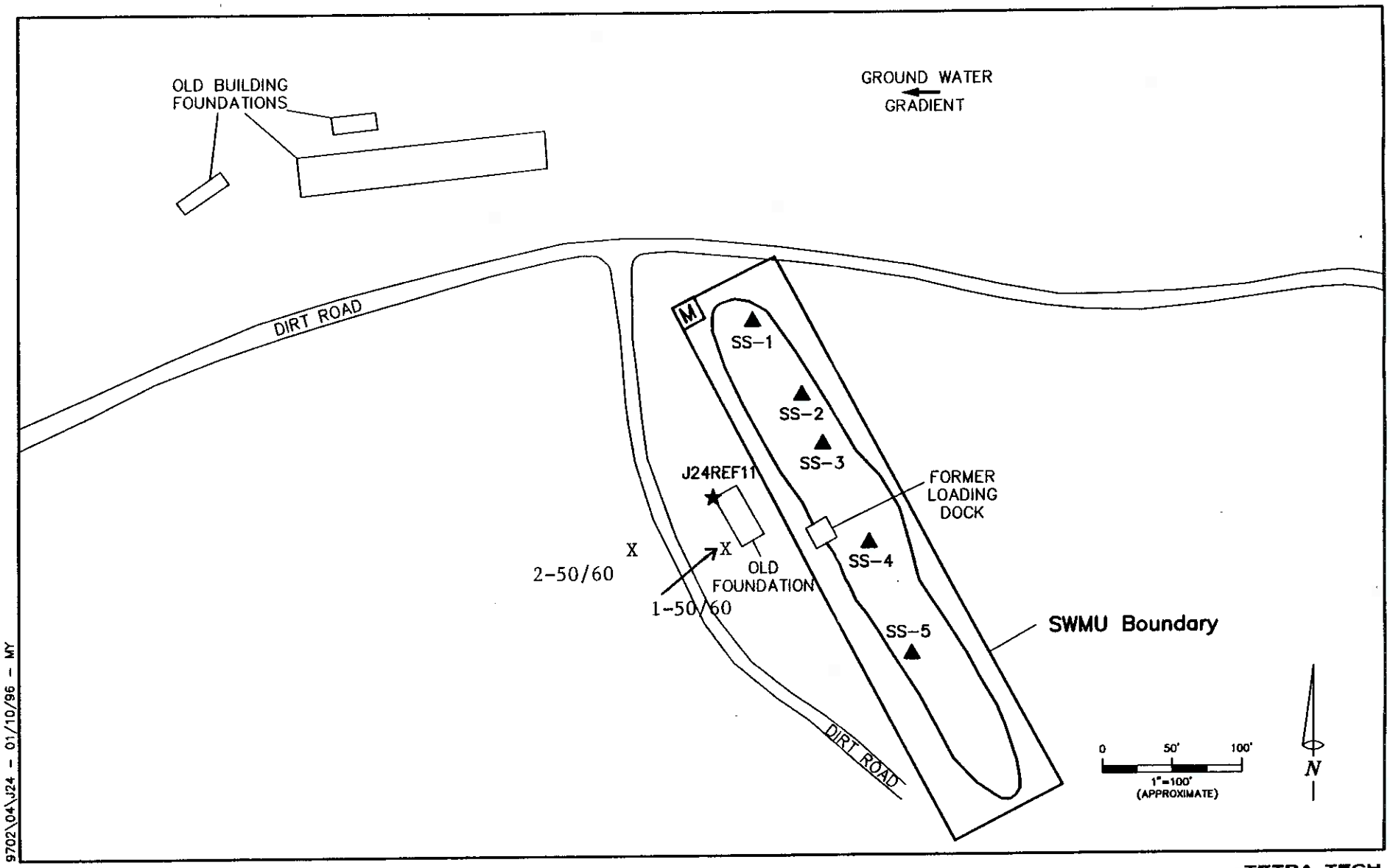


TETRA TECH

Location Map
Hawthorne Army Depot

Hawthorne, Nevada

Figure SWMU-J-24-1



LEGEND:

★ SWMU Reference Point

▲ SS-X Surface sample location and number

M Monument location

Source: Base map digitized from Aerial Photo Survey, June 1994. Geophysical data from Geophysical Survey, NORCAL, August 1994.

TETRA TECH

Activity Map SWMU J-24 50-60 Trench

Hawthorne Army Depot
Hawthorne, Nevada

Figure J-24-2

Appendix A

Proposed Closure Goals
Hawthorne Army Depot
Hawthorne, Nevada

Constituent of Concern	Chemical Classification	Carcinogenic (C) or Non-carcinogenic (NC)	HWAD Proposed Closure Goals for Soil (mg/kg)	HWAD Proposed Closure Goal Source
Nitrate	Anion	NC	128,000	Calculated Subpart S[a]
2-Amino-dinitrotoluene	Explosive	NC	-	NA[b]
4-Amino-dinitrotoluene	Explosive	NC	-	NA
1,3-Dinitrobenzene	Explosive	NC	8	Calculated Subpart S
2,4-Dinitrotoluene	Explosive	NC	160	Calculated Subpart S
2,6-Dinitrotoluene	Explosive	NC	80	Calculated Subpart S
HMX	Explosive	NC	4,000	Calculated Subpart S
Nitrobenzene	Explosive	NC	40	Calculated Subpart S
Nitrotoluene (2-, 3-, 4-)	Explosive	NC	800	Calculated Subpart S
RDX	Explosive	NC	64	Calculated Subpart S
Tetryl	Explosive	NC	800	Calculated Subpart S
1,3,5-Trinitrobenzene	Explosive	NC	4	Calculated Subpart S
2,4,6-Trinitrotoluene	Explosive	C	233	Calculated Subpart S
Aluminum	Metal	NC	80,000	Calculated Subpart S
Arsenic (cancer endpoint)	Metal	C & NC	30	Background[c]
Barium and compounds	Metal	NC	5,600	Calculated Subpart S
Beryllium and compounds	Metal	C	1	Background
Cadmium and compounds	Metal	NC	40	Calculated Subpart S
Chromium III and compounds	Metal	NC	80,000	Calculated Subpart S
Lead	Metal	NC	1000	PRG[d]
Mercury and compounds (inorganic)	Metal	NC	24	Calculated Subpart S
Selenium	Metal	NC	400	Calculated Subpart S
Silver and compounds	Metal	NC	400	Calculated Subpart S
Acenaphthene	PAH	NC	4,800	Calculated Subpart S
Benzo[a]anthracene	PAH	C	0.96	Calculated Subpart S
Benzo[a]pyrene	PAH	C	0.10	Detection Limit[e]
Benzo[b]fluoranthene	PAH	C	0.96	Calculated Subpart S
Benzo[k]fluoranthene	PAH	C	10	Calculated Subpart S
Chrysene	PAH	C	96	Calculated Subpart S
Dibenz[ah]anthracene	PAH	C	0.96	Calculated Subpart S
Fluoranthene	PAH	NC	3,200	Calculated Subpart S
Fluorene	PAH	NC	3,200	Calculated Subpart S
Indeno[1,2,3-cd]pyrene	PAH	C	-	NA
Naphthalene	PAH	NC	3,200	Calculated Subpart S
Pyrene	PAH	NC	2,400	Calculated Subpart S
Total Petroleum Hydrocarbons as Diesel (TPH-d)	PAH	C	100	NDEP Level Clean-up[f]
Polychlorinated biphenyls (PCBs)	PCBs	C	25	TSCA[g]
Bis(2-ethylhexyl)phthalate (DEHP)	SVOC	C	1,600	Calculated Subpart S
Bromoform (tribromomethane)	SVOC	C	89	Calculated Subpart S

Proposed Closure Goals
Hawthorne Army Depot
Hawthorne, Nevada

Constituent of Concern	Chemical Classification	Carcinogenic (C) or Non-carcinogenic (NC)	HWAD Proposed Closure Goals for Soil (mg/kg)	HWAD Proposed Closure Goal Source
Butyl benzyl phthalate	SVOC	NC	16,000	Calculated Subpart S
Dibromochloromethane	SVOC	C	83	Calculated Subpart S
Dibutyl-phthalate	SVOC	NC	8,000	Calculated Subpart S
Diethyl phthalate	SVOC	NC	64,000	Calculated Subpart S
Phenanthrene	SVOC		-	NA
Phenol	SVOC	NC	48,000	Calculated Subpart S
Acetone	VOC	NC	800	Calculated Subpart S
Anthracene	VOC	NC	24,000	Calculated Subpart S
Benzene	VOC	C	24	Calculated Subpart S
Bis(2-chloroisopropyl)ether	VOC	C	3,200	Calculated Subpart S
Bromomethane	VOC	NC	112	Calculated Subpart S
Carbon tetrachloride	VOC	C	5	Calculated Subpart S
Chlorobenzene	VOC	NC	1,600	Calculated Subpart S
Chloroform	VOC	C	115	Calculated Subpart S
Chloromethane	VOC	C	538	Calculated Subpart S
Dibromomethane	VOC	C	0.008	Calculated Subpart S
1,2-Dichlorobenzene	VOC	NC	7,200	Calculated Subpart S
1,4-Dichlorobenzene	VOC	C	18,300	Calculated Subpart S
Dichlorodifluoromethane	VOC	C	16,000	Calculated Subpart S
Ethylbenzene	VOC	NC	8,000	Calculated Subpart S
Methylene bromide	VOC	NC	800	Calculated Subpart S
Methylene chloride	VOC	C	4,800	Calculated Subpart S
2-Methylnaphthalene	VOC		-	NA
1,1,2,2-Tetrachloroethane	VOC	C	35	Calculated Subpart S
Tetrachloroethylene (PCE)	VOC	C & NC	800	Calculated Subpart S
Toluene	VOC	NC	16,000	Calculated Subpart S
1,1,1-Trichloroethane	VOC	NC	7,200	Calculated Subpart S
Trichloroethylene (TCE)	VOC	C & NC	480	Calculated Subpart S
Trichlorofluoromethane	VOC	NC	24,000	Calculated Subpart S
1,2,3-Trichloropropane	VOC	C	480	Calculated Subpart S
Vinyl chloride	VOC	C	0.37	Calculated Subpart S
Xylene Total (m-, o-, p-)	VOC	NC	160,000	Calculated Subpart S
2,3,7,8-TCDD	Dioxin	C	0.000005	Calculated Subpart S

[a] RCRA 55 FR 30870

[b] Not available

[c] Highest background concentration detected in 50 background soil samples

[d] Smucker, Stanford J. USEPA Rgion IX, Preliminary Remedial Goals, Second Half, Sep. 1995

[e] Method detection limit for Volatile Organic Compounds by EPA Method 8260 or Semi-Volatile Organic Compounds analyzed by EPA Method 8270

[f] Nevada Division of Environmental Protection

[g] Cleanup level for PCB spills in accordance with Toxic Substance and Control Act Spill Policy Guidelines 40 CFR 761

Appendix B

Summary Table of Analytical Data

SWMU J24 - Trench near 50-60

Hawthorne Army Depot

Hawthorne, Nevada

January 1996

FINAL

FINAL

Sample ID	Sample Depth (ft)	Sample Date	Method	Analyte	Value	Units	Flag
J24-SS01-1-S	0	7/13/94	6010	Arsenic	< 4	mg/kg	
J24-SS01-1-S	0	7/13/94	6010	Barium	99	mg/kg	
J24-SS01-1-S	0	7/13/94	6010	Cadmium	< 0.2	mg/kg	
J24-SS01-1-S	0	7/13/94	6010	Chromium	3.3	mg/kg	J
J24-SS01-1-S	0	7/13/94	6010	Lead	8.8	mg/kg	J
J24-SS01-1-S	0	7/13/94	6010	Selenium	< 5	mg/kg	
J24-SS01-1-S	0	7/13/94	6010	Silver	< 0.9	mg/kg	
J24-SS01-1-S	0	7/13/94	7471	Mercury	< 0.04	mg/kg	
J24-SS01-1-S	0	7/13/94	D2216	Moisture/TNFR	0.5	percent	
J24-SS01-1-S	0	7/13/94	D2216	Moisture/TNFR	0.48	percent	
J24-SS02-1-S	0	7/13/94	6010	Arsenic	< 4	mg/kg	
J24-SS02-1-S	0	7/13/94	6010	Barium	95	mg/kg	
J24-SS02-1-S	0	7/13/94	6010	Cadmium	< 0.2	mg/kg	
J24-SS02-1-S	0	7/13/94	6010	Chromium	2.7	mg/kg	J
J24-SS02-1-S	0	7/13/94	6010	Lead	9.5	mg/kg	J
J24-SS02-1-S	0	7/13/94	6010	Selenium	< 5	mg/kg	
J24-SS02-1-S	0	7/13/94	6010	Silver	< 0.9	mg/kg	
J24-SS02-1-S	0	7/13/94	7471	Mercury	< 0.04	mg/kg	
J24-SS02-1-S	0	7/13/94	D2216	Moisture/TNFR	0.39	percent	
J24-SS03-1-S	0	7/13/94	6010	Arsenic	< 4	mg/kg	
J24-SS03-1-S	0	7/13/94	6010	Barium	120	mg/kg	
J24-SS03-1-S	0	7/13/94	6010	Cadmium	< 0.2	mg/kg	
J24-SS03-1-S	0	7/13/94	6010	Chromium	2.5	mg/kg	J
J24-SS03-1-S	0	7/13/94	6010	Lead	15	mg/kg	J
J24-SS03-1-S	0	7/13/94	6010	Selenium	< 5	mg/kg	
J24-SS03-1-S	0	7/13/94	6010	Silver	< 0.9	mg/kg	
J24-SS03-1-S	0	7/13/94	7471	Mercury	< 0.04	mg/kg	
J24-SS03-1-S	0	7/13/94	D2216	Moisture/TNFR	0.3	percent	
J24-SS04-1-S	0	7/13/94	6010	Arsenic	< 5	mg/kg	
J24-SS04-1-S	0	7/13/94	6010	Barium	150	mg/kg	
J24-SS04-1-S	0	7/13/94	6010	Cadmium	< 0.2	mg/kg	
J24-SS04-1-S	0	7/13/94	6010	Chromium	4.3	mg/kg	J
J24-SS04-1-S	0	7/13/94	6010	Lead	20	mg/kg	J
J24-SS04-1-S	0	7/13/94	6010	Selenium	< 6	mg/kg	
J24-SS04-1-S	0	7/13/94	6010	Silver	< 1.1	mg/kg	
J24-SS04-1-S	0	7/13/94	7471	Mercury	< 0.05	mg/kg	
J24-SS04-1-S	0	7/13/94	D2216	Moisture/TNFR	19	percent	
J24-SS05-1-S	0	7/13/94	6010	Arsenic	< 4	mg/kg	
J24-SS05-1-S	0	7/13/94	6010	Barium	170	mg/kg	
J24-SS05-1-S	0	7/13/94	6010	Cadmium	< 0.2	mg/kg	

Summary Table of Analytical Data

SWMU J24 - Trench near 50-60

Hawthorne Army Depot

Hawthorne, Nevada

January 1996

FINAL

FINAL

Sample ID	Sample Depth (ft)	Sample Date	Method	Analyte	Value	Units	Flag
J24-SS05-1-S	0	7/13/94	6010	Chromium	3.5	mg/kg	J
J24-SS05-1-S	0	7/13/94	6010	Lead	14	mg/kg	J
J24-SS05-1-S	0	7/13/94	6010	Selenium	< 5	mg/kg	
J24-SS05-1-S	0	7/13/94	6010	Silver	< 0.9	mg/kg	
J24-SS05-1-S	0	7/13/94	7471	Mercury	0.04	mg/kg	
J24-SS05-1-S	0	7/13/94	D2216	Moisture/TNFR	0.98	percent	

NEL LABORATORIES

CLIENT: Day & Zimmerman Hawthorne Corporation
PROJECT ID: NFA sites
PROJECT #: NA

CLIENT ID: **1-50/60**
DATE SAMPLED: 6/4/98
NEL SAMPLE ID: R9806032-65

TEST: **TCLP-8 Metals**
MATRIX: Solid

PARAMETER	RESULT mg/L	REPORTING LIMIT	D. F.	METHOD	TCLP/STLC EXTRACTION DATE	DIGESTED	ANALYZED
Arsenic	ND	0.1 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Barium	ND	1. mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Cadmium	ND	0.01 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Chromium	ND	0.01 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Lead	ND	0.05 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Mercury	0.0025	0.002 mg/L	10	EPA 7470A	6/9/98	6/16/98	6/16/98
Selenium	ND	0.1 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Silver	ND	0.02 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98

D.F. - Dilution Factor

ND - Not Detected

NEL LABORATORIES

CLIENT: Day & Zimmerman Hawthorne Corporation
PROJECT ID: NFA sites
PROJECT #: NA

CLIENT ID: **2-50/60**
DATE SAMPLED: 6/4/98
NEL SAMPLE ID: R9806032-66

TEST: **TCLP-8 Metals**
MATRIX: Solid

PARAMETER	RESULT mg/L	REPORTING LIMIT	D. F.	METHOD	TCLP/STLC EXTRACTION DATE	DIGESTED	ANALYZED
Arsenic	ND	0.1 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Barium	ND	1. mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Cadmium	ND	0.01 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Chromium	ND	0.01 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Lead	ND	0.05 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Mercury	ND	0.002 mg/L	10	EPA 7470A	6/9/98	6/16/98	6/16/98
Selenium	ND	0.1 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98
Silver	ND	0.02 mg/L	1	EPA 6010A	6/9/98	6/15/98	6/15/98

D.F. - Dilution Factor

ND - Not Detected

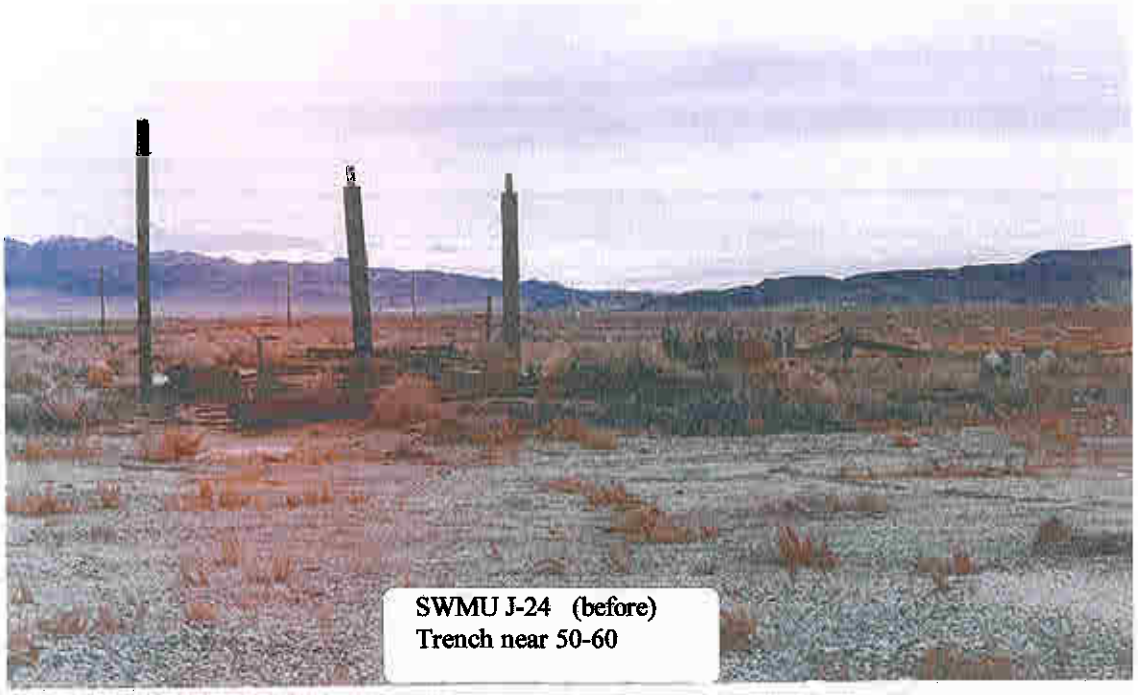
Appendix C

Survey Data at SWMU J-24
Hawthorne Army Depot
Hawthorne, Nevada

Point Name	Northing	Easting
J24REF10	497455.88	1373837.17
SS-1	497869.53	1373756.65
SS-2	497905.3	1373703.46
SS-3	497920.73	1373667.79
SS-4	497954.77	1373596.04
SS-5	497985.65	1373515.55

Footnote: Survey data in Nevada State Plane West, 1927 coordinates.

Appendix D



SWMU J-24 (before)
Trench near 50-60

SWMU J-24 (after)
Trench near 50-60